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New rules aim for quicker angioplasties for heart attack patients

By ALAN BAVLEY
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Each year, hundreds of heart attack patients are rushed to area hospitals for balloon angioplasties. In many cases, the ambulances head for the nearest hospital.

That could change.

Area hospitals and emergency medical services providers are close to adopting new rules that would instead route certain heart attack patients past some hospitals to those that are best equipped to care for them.

These particular hospitals have doctors and staff on call 24/7 to perform emergency angioplasties to rapidly restore blood flow to clogged heart arteries.

The proposed rules would apply to patients diagnosed in the field by paramedics taking electrocardiogram readings.

Patients who show up on their own at hospitals that cannot do emergency angioplasty would receive high priority for an ambulance transfer to an appropriate hospital.

“It’s wise. It makes common sense. It saves lives,” said Darryl Coontz, deputy chief of clinical services at the MAST ambulance service. Coontz is co-chairman of a committee of hospitals and ambulance services that developed the proposed new rules.

Coontz said he hoped to submit a draft of the plan on Friday to the Mid-America Regional Council’s emergency rescue committee.

If adopted, the new rules would apply to the treatment of several hundred heart attack cases a year, Coontz estimated.

Thirteen area hospitals have been identified as capable of performing emergency angioplasties.

Meanwhile, Missouri health officials began discussions this week that could lead to a similar system statewide.

Springfield already treats heart attack cases this way. And systems are in place elsewhere across the country, from Southern California to North Carolina.

If the rules are adopted for the Kansas City area, it would mean heart attack cases would be treated in a way similar to how trauma cases are handled already.

Paramedics take seriously injured people to the hospitals staffed and equipped for trauma. When these hospitals are too busy to take additional cases, paramedics are notified to take patients to the next-closest hospital.

Currently, ambulances may take heart attack patients to the nearest hospital, which may not be able to do angioplasty on an emergency basis. But transferring patients to an appropriate hospital can waste precious time that raises the risk of complications or death.

"The earlier you open the artery, the more heart muscle you save," said Steven B. Laster, a cardiologist at St. Luke's Hospital, which was a national pioneer in the use of emergency angioplasty. "The challenge is how to get the patient quickly to angioplasty. I think the key is to make the diagnosis early in the field."

A Canadian study published today in The New England Journal of Medicine found that diagnosing heart attack patients at the scene and taking them immediately to a heart center in Ottawa cut the time it took to initiate angioplasty almost in half.

Patients who get angioplasty quicker appear to suffer fewer complications and are able to leave the hospital sooner, said lead researcher Michel Le May of the Ottawa Heart Institute.

"What we are getting is our own colleagues supporting this and saying, 'What good results,' " Le May said.

Robert Miller, 54, benefited from that kind of quick treatment late last summer.

"Someone did something in a hurry and did it well," he said.

Miller was finishing up some yard work when he developed intense chest pains. He called Johnson County Med-Act, which sent an ambulance to his south Overland Park home.

Paramedics performed an electrocardiogram that was transmitted to doctors at St. Luke's South.

"I remember hearing all the talk, and the decision was made to transport," Miller said. "The next thing I remember is the emergency room nurses saying, 'Stay with us, stay with us.' "

Within 25 minutes after his arrival, doctors were performing an angioplasty.

"It was still hurting like the devil. And, gosh, it couldn't have been three minutes and boom, the pain was gone. I was good to go afterward."

Under the proposed Kansas City area plan, the kind of heart attack that would received priority attention for an angioplasty is called an ST-segment elevation myocardial infarction, or STEMI. Basically, that's a heart attack with a completely clogged heart artery in which one of the lines on the electrocardiogram is abnormally elevated.

Only about 10 percent of heart attacks are STEMIs, said Peter Tadros, a cardiologist at the University of Kansas Hospital.

"But with STEMI, it's an emergency like trauma is an emergency," Tadros said. "With other heart attacks, there's more of a luxury of time."

STEMI heart attacks can be treated with clot-busting drugs that dissolve the blockages. But such drugs work only about half the time; angioplasty is effective in 90 percent or more of cases.

Researchers have found that the risk of death rises the longer it takes to start the angioplasty procedure. Guidelines call for hospitals to be able to start angioplasty within 90 minutes of a patient's arrival at the emergency room — called the door-to-balloon time — at least 75 percent of the time.

Tadros said he expects patients will be treated quicker if the Kansas City area adopts a STEMI heart attack treatment system.

"When paramedics are empowered and trained, the door-to-balloon time is substantially shorter," he said.

If patients are diagnosed in the field, hospitals can activate their angioplasty teams faster and be ready when patients arrive, Tadros said. The system also would mean fewer patients would have to be transferred, he said.

Once a heart attack treatment system is in place, the next goal would be a similar system for directing stroke patients to certain hospitals, Coontz said.

That is also the goal of J. William Jermyn, medical director of Missouri emergency medical services.

Jermyn began a series of meetings this week with hospitals, physicians and emergency providers to discuss the formation of a statewide system that would direct heart attack, stroke and trauma patients to appropriate hospitals.

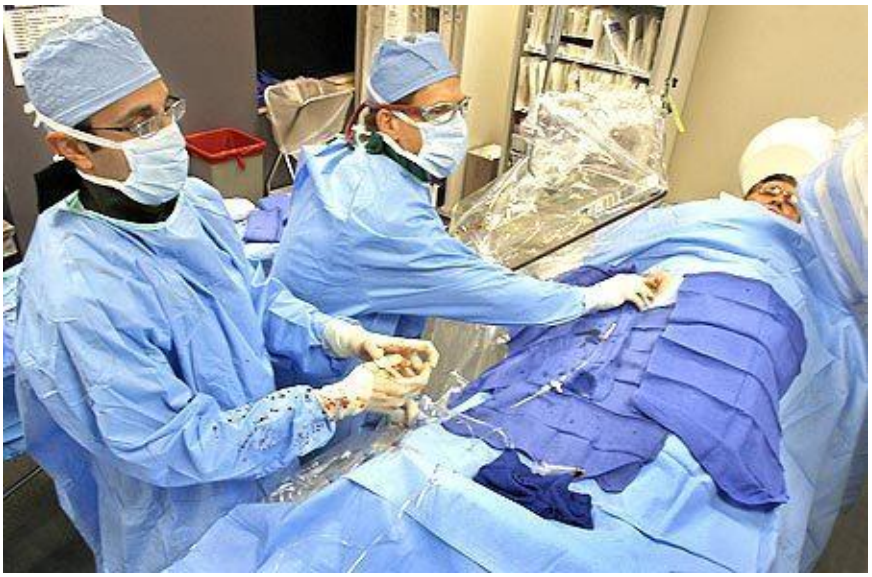
“We need one system with three parallel arms that can share resources,” he said.

Jermyn said such a system probably would be implemented voluntarily by different regions of the state.

“This is Missouri, and in general, mandatory requirements are not well-received,” he said.

Angioplasties

Traditional angioplasty involves the insertion into an artery of a catheter with a balloon near the end of it. The balloon is moved into or near a blockage, then inflated. This opens the vessel and restores blood flow to the heart. For a list of hospitals capable of performing emergency angioplasties around the clock, see A10.



Angioplasties such as this one, performed Wednesday at St. Luke's by physicians Steven Laster (right) and Sameer Mehta on patient Dolphford Bain, are a common procedure. Not all hospitals, however, are equipped to handle them on an emergency basis.

A. Research Medical Center
B. St. Luke's Hospital
C. St. Luke's South
D. Olathe Medical Center
E. Menorah Medical Center
F. Shawnee Mission Medical Center
G. Centerpoint Medical Center
H. Lee's Summit Medical Center
I. University of Kansas Hospital
J. North Kansas City Hospital
K. Overland Park Regional Medical Center
L. Providence Medical Center
M. St. Joseph Medical Center

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